



IES-2310C: Industrial 8-Port L2 Managed Fast Ethernet Switch + 2 TP/SFP Gigabit Dual Media

Key Features

- 8-Port 10/100BaseT(X), 2-Port 1000 BaseTX/FX(SFP)(MM/SM, LC/BiDi)
- Support IEEE802.3/802.3ab/802.3ad/802.3u/802.3x/802.3z/802.1d/802.1p/802.1q/802.1w
- Support SNMP, RMON,IGMP,LACP, GVRP,GARP,STP,RSTP,
- R-Ring (Recover Time < 300ms) for Ethernet Redundancy
- Power Input: 24VDC (18~48V)
- -10°C to 60°C operating temperature
- DIN-Rail mounting ability
- Alarm contact

Overview

IES-2310C is an industrial Managed Fast Ethernet switch that supports SNMP, Web UI and CLI management interface and with 8 10/100Base-TX (RJ-45 connectors) and 2 Gigabit dual media (RJ-45/SFP) ports. It is a standard switch that meets all IEEE 802.3/u/x/z Gigabit, Fast Ethernet specifications. In addition, the switch implements the QoS (Quality of Service), VLAN, Mac Filtering Policy, Port Mirror, VLAN and full L2 protocols. It has a rich feature set suitable for streaming VoIP, video, and data traffics for multimedia applications.

Moreover, for industrial automation application, redundancy is an important issue to ensure the network reliability, IES-2310C provides R-Ring technology to enable self-recover time in less than 300ms.

In this switch, Port 9, 10 support two types of media --- TP and SFP Fiber (LC, BiDi-LC...); both ports support 10/100/1000Mbps TP or 1000Mbps SFP Fiber with auto-detected function. 1000Mbps SFP Fiber transceiver is used for high-speed connection expansion.

Technical Specifications

• **Standard compliance**

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- IEEE 802.3x Flow Control Capability
- IEEE 802.3z 1000Base-X Ethernet
- IEEE 802.3ab 1000Base-TX
- ANSI/IEEE 802.3 Auto-negotiation
- IEEE 802.1q VLAN
- IEEE 802.1d Spanning Tree Protocol.
- IEEE 802.1w Rapid Spanning Trees
- IEEE 802.1x port-based network access control
- IEEE802.1p Class of Service

• **Subscriber Interface**

- 1-8 10/100Mbps Fast Ethernet ports.
- Port 9 and 10 are Gigabit TP/SFP Fiber auto sense
- Auto-Negotiation and Auto-MDIX
- Back pressure flow control for half duplex.
- Connector: 8 RJ-45 and 2 dual media, RJ-45/SFP

• **Performance**

Switching capacity:

- Non-blocking switch fabric supports up to 8FE + 2GbE ports
- 8 K MAC addresses
- 256K packet buffer and 128K control memory

VSM(Virtual Stacking Management)

- Supports 16 devices stacking
- Multiple switches can be managed via one IP address, just like software stacking

VLAN

- Supports SVL/IVL configuration to meet your VLAN requirement
- Port-base VLAN
- IEEE802.1q tag-base VLAN, 4094 max, up to 256 active VLANs including static plus dynamic entry
- Flooding unknown VLAN frame setting, can flood packet with some VLAN tag associated to a invalid/inactive VLAN
- In tag-base VLAN, supports egress/ingress packet filter
- Q-in-Q is an efficient method for enabling Subscriber Aggregation

QoS

- Port Based (VIP Port), 802.1p , TOS and DiffServ.(IPv4/IPv6) based QoS packet classification
- Supports four level priority queues to prioritize in-bound and out-bound traffic
- Supports two scheduling, WRR and Strict
- Supports priority in a Q-in-Q tag

Bandwidth Control

---Supports bandwidth rating per port ingress and egress rate limit with 1Mbps increment

Broadcast Storm

---Multicast/Broadcast/Unknown-Unicast Storm suppression.

Transmission Mode

---10/100Mbps support full or half duplex

Transmission Speed

---10/100Mbps for TP and 100Mbps for Fiber

Port Mirroring

---Support 1: N RX port mirroring

---Supports port sniffer function with 3 modes:(TX Monitor Mode, RX Monitor Mode and TX-RX pair Monitor Mode)

Redundant Ethernet Ring Capability (Recover time <300ms)

• Protocol
LACP

---2 Fast Ethernet +1 100BaseFX groups

---Per-group max 4 member

---Provides DA, SA and DA+SA Mac-based trunking with automatic link fail-over GVRP/GARP

GVRP/GARP

---802.1q with GVRP/ GARP

Multicasting

---Supports IGMP snooping including active and passive mode

STP/RSTP

---802.1d/1w

• Network Security

---802.1x access control

---Isolated group, to allow certain ports being designated as protected

---Restricted group, to decide the direction of transmitting packets for specific ports.

---Management Access Policy Control

---Static Mac, to limit which Mac addresses can pass through or not

---Mac addresses learning limit, to set up the maximum amount of Mac that each port can learn

• Snmpv1,v2c Network Management

• RFC 1213 MIB (MIB-II)	• RFC 1757 RMON MIB
---Interface MIB	---Statistics Group 1
---Address Translation MIB	---History Group 2
---IP MIB	---Alarm Group 3
---ICMP MIB	---Event Group 9
---TCP MIB	• RFC 1493 Bridge MIB
---UDP MIB	• RFC 1643 Ethernet MIB
---SNMP MIB	• Enterprise MIB

• LED Description

	LED
Global	POWER
Global	CPU
Port 1-8 10/100MTP	LINK/ACT/SPD, FDX/COL
Port 9,10 1000M TP/SFP	LINK/ACT/SPD, SFP LINK

• Network Interface:

Category	Connector	Transmission	Max. Cable Length	Wavelength
1000-T	RJ-45	Full Duplex	100M	/
1000-SX(M-M)	LC(SFP)	Full Duplex	220M 50/125μ	850nm
1000-SX(S-M)	LC(SFP)	Full Duplex	10km 9/125μ	1310nm

• Hardware Spec

Feature	Detailed Description
Voltage	24VDC Input (18~48V) (Terminal Block)
Consumption	11.6W
Ambient Temperature	-10°C to 60°C
Humidity	5% to 90%
Dimensions	44(H) x 220(W) x 130.5(D) mm
Installation	Din Rail (Rack mount, Wall Mount: Optional)
Alarm contact	Current carrying capacity 1A @ 24V
Safety	Comply with FCC Part 15 Class A & CE Mark Approval
Shock	IEC60068-2-27
Freefall	IEC60068-2-32
Vibration	IEC60068-2-6
Casing	IP30 Protection
Warranty	3 Years

Packing Information

Carton Dimensions(mm)	pcs/Carton	N.W (KG)	G.W (KG)
585x380x280	10	14.3	15.3

Ordering Information

IES-2310C: Industrial 8-Port L2 Managed Fast Ethernet Switch + 2 TP/SFP Gigabit Dual Media

• Optional SFP Fiber Module

SFP.LC	1000Base-SX GE SFP Fiber Module, LC Multi-Mode 850nm
SFP.LC.M2	1000Base-SX GE SFP Fiber Module, LC Multi-Mode 1310nm 2km
SFP.LC.S10	1000Base-LX GE SFP Fiber Module, LC Single-Mode 10Km
SFP.LC.S30	1000Base-LX GE SFP Fiber Module, LC Single-Mode 30Km
SFP.LC.S50	1000Base-LX GE SFP Fiber Module, LC Single-Mode 50Km
SFP.BL3.S10	1000Base-LX GE SFP Fiber Module, BiDi LC Single-Mode 10km, 1310nm
SFP.BL5.S10	1000Base-LX GE SFP Fiber Module, BiDi LC Single-Mode 10km, 1550nm
SFP.BL3.S20	1000Base-LX GE SFP Fiber Module, BiDi LC Single-Mode 20km, 1310nm
SFP.BL5.S20	1000Base-LX GE SFP Fiber Module, BiDi LC Single-Mode 20km, 1550nm

Note:

We recommend the SFP transceiver from the following vendors:

1. Ruby Tech Corporation
2. Agilent Technologies
3. AVAGO Technologies
4. Finisar Corporation

Optional Accessories

- **MDR-20-24:** 24W/1A DIN-Rail 24V VDC Power Supply with universal 85 to 264 VAC input

Ruby Tech Corp.

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